

GOOD ROADS

IMPROVE ROADS BY DRAINAGE

One of the Most Important Matters to be Considered in Construction of Public Highways.

(By E. L. GATES, Illinois.)
When it comes to building roads there are a good many problems to solve and not easy ones at that. Riding along in an auto it is easy enough to say when you strike a smooth stretch, "this is fine," and turn on a little more gas, but when you hit a mudhole and ruts you may get your foot on the wrong pedal and the road commission catches it.

It takes labor, time, good material and money to have good roads. Everyone wants the roads, so we will all have to work and spend some of our time and money and boost for better roads.

One of the things most needed is better drainage for the roads as well as for the farms and at this time we will confine this article to the subject of drainage.

Drainage is the most important matter to be considered in the construction of roads. Drainage alone will often change a bad road into a good one while the best stone road may be destroyed from a lack of proper drainage.

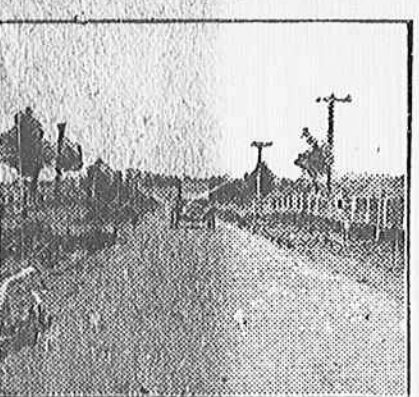
There are three systems of drainage that we can use to advantage, and these are underdrainage, side ditches and surface drainage.

Where water stands on a road underdrainage without any grading is better than grading without underdrainage. Underdrainage is not to remove simply the surface water but its greatest help is to lower the water level in the soil.

The action of the sun and wind will finally dry the surface of the road but if the foundation is wet and soft the wheels will wear ruts and these get filled with water during the first rains and the road becomes a sticky mass. An undrained soil is a poor foundation on which to build roads as well as houses. When frost is leaving the thawing is quite as bad as the frost itself. If the water is provided the road is moved.

One method to lay a line of ditches is to follow the road. This gives the water a way to get away from the road and at the same time a great benefit to the farm.

Side ditches are necessary to all roads but no road can be maintained with the ditch holding the water under it.



Well-Drained Road in Illinois.

If it evaporates. In most cases it is cheaper to get the water away from the road than to try to lift the road out of it.

Sometimes roads on the hillsides are left without side ditches. This is a mistake, for if any road needs a ditch it is the one on a hillside, for there are no ditches the water runs along the middle of the road and wears gullies and as we all know, makes a bad road.

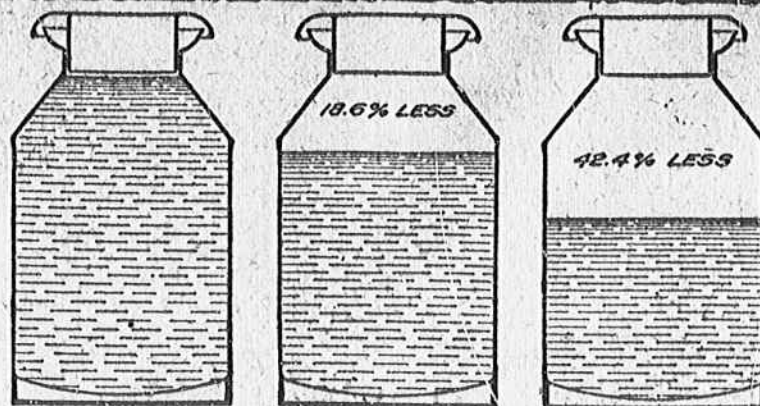
The roads should be so crowned that water can reach the tile or ditches. If all ruts and mudholes are filled, the water will have a better chance to run off. There are several machines made to keep the roads in shape and these need to be used often and at the right time. It is not necessary to spend half a day in trying to get hold of a road commissioner to help open a culvert or let the water out of a hole in the road. Better spend the time in doing it yourself and you will feel better and your neighbor will thank you.

Arteries of Community.
Improved public roads are directly related to better country homes and schools, to the reach and influence of country churches, to the thrifty market centers. They are the arteries of organized community life.—Home and Garden.

Road Drags for Upkeep.
The road drag is not an equipment for constructing roads, but it is indispensable for upkeep. It should not move a large quantity of earth, but takes a small amount of wet earth to or away from the center of the road. It is important to remember that the road drag does not build roads, but helps to keep them in repair.

Using Taxpayers' Money.
There is no better way to use the taxpayers' money than by draining our roads.

CATTLE TICK IS COSTLY TO THE SOUTH



Milk From Tick-Free Cows.

From Cows With Many Ticks.

From Cows With Few Ticks.

A very large area in the South has already been freed from the tick, but twice as much still remains to be cleaned. The tick must go, and go at once if the South is to enjoy anything like its legitimate share of prosperity.

Ticky cattle are worth anywhere from \$5 to \$10 a head less than tick-free cattle, but because it is impossible to introduce purebred stock into tick-infested territory for the purpose of grading up the herds, the difference between the average value of cattle in the tick states and in the free states is much greater than this. On January 1 of this year, for example, the average price of beef cattle over two years old in ten tick-infested states—North and South Carolina, Georgia, Alabama, Arkansas, Oklahoma and Texas—was \$29.90. For the remainder of the country it was \$48.47. In Georgia and Florida the price was only \$18, in Alabama \$20, in Mississippi \$22, in Louisiana \$24. With the exception of Vermont and Tennessee, where the averages were \$39 and \$35, respectively. Every tick-free state had an average of \$40 or more. Eighteen states were over \$50.

Tick-infested cattle not only weigh less—and therefore are worth less—than tick-free cattle, but they bring less per pound. In Alabama and Mississippi on January 1 the average price was four cents. In Connecticut it was 8.4 cents, and in no free states was it as low as five cents. The hides of the ticky cattle are damaged, and such hides cannot be used or making a fine grade of leather, therefore the market price for hides from ticky cattle is much reduced. From 60 cents to \$1.25 is the average loss in value of tick-bitten hides.

Dairy cattle suffer no less than beef stock, for the tick gets the blood that should go to the making of milk. Government tests show that a light infestation of ticks reduces the milk flow 18 per cent; a heavy one as much as 42 per cent. Translate this loss into dollars and cents for a herd of 20 cows, which under normal conditions should each give eight quarts a day. With milk at five cents per quart a light infestation costs the owner of such a herd \$290 in the course of 200 days' milking. A heavy infestation costs him \$670. In a county where systematic tick eradication work is under way he could dip his herd, free them from ticks and save this loss for a total expenditure that would certainly be no more than \$10.

This is not mere theory; it has been proved in actual practice. One dairyman's experience is typical. He owned 42 ticky cows, gave them one dipping and a week afterwards found that he had 18.6 per cent more milk. The daily revenue from the herd was increased \$3.50.

For all the evils that the tick causes there is a very simple remedy—an arsenical bath.

The work must, however, be systematic and comprehensive. An undipped herd is a menace to all the dipped ones. For this reason the best results are obtained when a county, having once voted to undertake eradication, thereafter enforces rigidly the necessary regulations. To aid in organizing its campaign and in supervising the construction of the vat and the dipping of the cattle, the United States department of agriculture supplies experienced specialists; the county or cattle owners build the vats and furnish the arsenic.

and other small grain to supplement the corn as food. Pay attention to winter grazing.

Fourth. Produce hay and forage from some forage crop, sufficient to supply all of the live stock on the farm. Use legumes such as clover, cowpeas, velvet beans, soy beans and alfalfa for the production of hay and to enrich the soil with nitrogen and humus.

Fifth. Produce the meat necessary to supply the people through increased attention to poultry and hogs, especially. Plan to increase gradually the number of cattle and other live stock so as to have a sufficient number to consume the waste products of the farm and make the waste lands productive.

Sixth. After all of these things have been amply provided for, produce cotton for the market.

Wonderful Feed for Hogs.

Alfalfa is a wonderful feed for hogs when fed in combination with some grain. Alfalfa alone as a hog feed does not give good results except perhaps for mature sows as they run on pasture after weaning the pigs. To get good gains on growing pigs in an alfalfa pasture, they should be fed from one and a half to two pounds of grain for every hundred-weight of live hog, corn being ideal for this purpose.

tankage may be gradually reduced, though they should not be cut out entirely, unless some other feed relatively rich in protein is used to supplement the grain.

Three or four weeks after farrowing, green pasture should constitute a portion of the ration for both sow and pigs if the best results are obtained.

Supply of Nitrogen.

Nitrogen is the most expensive ingredient of fertilizers. It is believed that the cheapest means of supplying it is by growing clover and plowing it under green, or by feeding the stock and returning the manure.

Reduce Quality of Milk.

Irregularities of feeding and milking, exposure to heat, cold, rain and flies, and harsh treatment tend to reduce both the quantity and the quality of milk produced.

Collect and burn all dried rotten fruits that remain on the trees or that have fallen to the ground. This will aid in the control of insects and diseases next year.

The flowers are covered with the green braid. The petals of the flowers are worked in yellow skeleton stitches, while the centers of the flowers are filled in with brown French knots.—Boston Herald.

Discouraging.

The woman who marries a man to reform him must be discouraged to see how much work one small specimen requires when an evangelist can arise and have them hitting the trail by the hundreds.

SPONGE BREAD OF QUALITY

Proper Mixture of Ingredients is of the First Importance in Its Preparation.

One cake yeast, one and one-half quarts lukewarm water, two tablespoonfuls sugar, four and a half quarts sifted flour, two tablespoonfuls lard or butter, melted, one tablespoonful salt.

Dissolve the yeast and sugar in one quart of the lukewarm water, and add one and one-half quarts of sifted flour, or sufficient to make an ordinary sponge. Beat well. Cover and set aside to rise for about one and one-half hours in a warm place.

When well-risen add the pint of lukewarm water, lard or butter, the remainder of the flour, or enough to make a moderately firm dough, and the salt. Knead thoroughly; place in greased bowl. Cover and let rise from one and one-half to two hours.

When light, mold into loaves and place in well-greased baking pans, cover and let rise again for about one hour. When light, bake forty to fifty minutes, reducing the heat of oven after first ten minutes.

This recipe makes four large loaves. The whole process takes from five and one-half to six hours, and if followed closely will produce excellent results.

If a richer loaf is desired, use milk in place of all or part of the water.

OATMEAL BREAD AT ITS BEST

Recipe That May Be Relied On to Give Satisfaction to the Most Discriminating Palate.

One cake yeast, one-half cupful lukewarm water, two cupfuls boiling water, two cupfuls rolled oats, one quarter cupful brown sugar, two tablespoonfuls lard or butter, melted, four cupfuls sifted flour, one teaspoonful salt.

Pour two cupfuls of boiling water over oatmeal, cover and let stand until lukewarm. Dissolve yeast and sugar in one-half cupful lukewarm water, add shortening and add this to the oatmeal and water. Add one cupful of flour, or enough to make an ordinary sponge. Beat well. Cover and set aside in a moderately warm place to rise for one hour, or until light.

Add enough flour to make a dough—about three cupfuls, and the salt. Knead well. Place in greased bowl cover and let rise in a moderately warm place, until double in bulk—about one and one-half hours.

Mold into loaves, fill well-greased pans half full, cover and let rise again about one hour. Bake 45 minutes in a hot oven.

One-half cupful of chopped nuts may be added, if desired.

Cheese for Dessert.

It is said that a little cheese at the end of a dinner acts as a digestive agent, but whether or not this is true, no well appointed dinner is without it. In many homes a bit of cheese with an accompanying fruit or jelly, is used as a dessert instead of some pudding or pie. It is just a sufficient finish to a family dinner without dessert. If there is dessert, the cheese is frequently served with the salad, Roquefort cheese with lettuce or tomatoes. Connoisseurs do not cut a Roquefort cheese until it is well advanced in decay and therefore it is not well to set before a man of this sort a new bit of the cheese. It is more advisable to leave it out altogether and give him brie or cheddar both of which are favorite cheeses with men.

Banana Trifle.

Cover the bottom of a serving dish with little sponge cakes or ladyfingers, then arrange a layer of thinly sliced bananas over these; squeeze the juice of two oranges and one lemon over them, and cover with a smooth boiled custard. If the custard is colored with the juice from canned raspberries or with a little coloring from a package of gelatin it will make a very attractive appearance. Top with whipped cream and decorate with candied rose leaves or in any manner you prefer.

Bread Griddlecakes.

One and a half cupfuls of fine state bread crumbs, one and one-half cupfuls scalded milk, two tablespoonfuls butter, two eggs, one-half cupful flour, one-half teaspoonful salt, four teaspoonfuls baking powder. Add milk and butter to crumbs and soak until crumbs are soft; add baking powder mixed and sifted. Cook same as other griddlecakes.

Cabbage Omelet.

Boil a small cabbage until tender, drain, let stand several hours, then chop finely. Season with pepper and salt, add one tablespoonful of melted butter, three well-beaten eggs and half a cupful of thin cream. Mix one large tablespoonful of butter in an omelet pan, turn in the mixture, stir until brown, turn out in a hot dish, and garnish with parsley.

Cake With Cocoa Cream.

Take two eggs and separate yolks and whites. Beat yolks, add one cupful of sugar, half cupful of cold water, one cupful of flour sifted three times, with one teaspoonful of baking powder. Last add stiffly beaten whites of eggs and one teaspoonful of vanilla.

To Soften Blacking.

Very often shoe polish or stove polish becomes hard and dry. In this case, add a little turpentine. This softens the polish and makes it better for use.

DISTINCTLY A "WAR BABY"

Kitten's String of Names Left No Doubt as to the Sympathies of Its Owner.

A certain little Philadelphia girl is distinguished chiefly by her fondness for cats and kittens, which she much prefers to dolls.

Several days ago she was sitting on the sunny steps of the front porch, tenderly nursing on her lap a coal-black kitten; very small as yet, but sturdy and full of promise.

"What a pretty kitten!" remarked a neighbor in passing. "What do you call him, my dear?"

"I call him Allie," was the reply. "Allie! I think you must mean Alice, do you not?" suggested the lady with a smile.

"Oh, no, not Allie! His name is Allie," corrected the child. "His right name," proudly, "is George Albert Nicholas Peter Victor Emmanuel Joffe; but father says that is a heavy load for such a little fellow to carry, so I call him Allie for short!"

As the lady proceeded up the street, she heard a childish voice say tenderly: "Come, Allie, we must go in. It is time for you to have your rations."

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Didn't Need the Ball.

Two neighboring football clubs had been drawn together. Local rivalry ran riot with the feelings of the players, and hard knocks were the order of the day. At the end of the first half each side had scored a goal, and several men had been wounded and winded in the fray.

Neither side being able to add to the score, the game resolved itself into a free fight. At last the ball collapsed and someone volunteered to go for a new one.

"Oh, never mind a ball," shouted a player from behind a bundle of bandage; "let's go on with the game!"

Resourceful Tailor.

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"These are about as large as checks come in cloth. I might possibly make you up a vest out of linoleum."—Louisville Courier-Journal.

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Obliging, at Least.

"Is Alice musical?" "No, but she always sings if you ask her."—Boston Transcript.

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